

PTC/User 2006 World Event

The PTC/User group event changes location annually, and this year Pro/Engineer, Windchill and now Arbortext users gathered in Grapevine, Texas.

FOR AN ENGLISHMAN, travelling to the States is always an enjoyable thing. The wonders of getting the third degree at Customs and Immigration from a guy that thinks the UK is part of France, and having your biometrics permanently stored on US government computers makes the whole process such a inexplicable joy. In particular, I always love that language shift that takes place somewhere mid-Atlantic, where common references become confused and much accidental hilarity often ensues. So, it was with not a small amount of boyish delight that I climbed into the back of a minibus to go to the location of this year's PTC/User event, and confirm to Randy the driver, "Yes, I would like to go to the Gaylord Resort."

The PTC/User event is organised by the staunchly independent Pro/User community but, as you might expect, it is funded by both the visitors and by PTC. This year's event saw numbers of attendees swell compared to previous events because it was the first that brought together both the traditional PTC users of Pro/Engineer and Windchill, along with the community that surrounds one of PTC's major acquisitions of the last couple of years, Arbortext. Alongside the keynote presentations and user sessions, PTC also hosted its annual media and analyst event – where PTC gets the opportunity to sit the global media down and tell them how the company has been doing, what it's been up to and, as with all these things, give an insight into where it is heading.

As with all such events, things kicked off with a keynote presentation from the executives at PTC. Dick Harrison took the stage and delivered an update to the assembled 2,500 faithful on PTC's performance. It would seem that the past year as been good for PTC, with revenues up 9% year over year – with organic growth driving much of that increase. PTC splits its product offerings into two camps, Desktop (Pro/Engineer) and Enterprise Solutions (Windchill and Arbortext). Both camps

are growing, with the Enterprise solutions maxing out at 32.5% growth. Geographically, growth is also evenly spread, with all regions (with the exception of Japan) increasing - North America is growing the most at 25.4%, Europe is at 9.1% while the pacific rim falls somewhere in between at 13.9%.

In terms of future targets, PTC is looking to 2008 to be the year where the acquisitions and business model changes really come to fruition. While, at present, maintenance occupies 48% of revenue, with services and license sales splitting

and publish customised and tailored documentation very quickly (probably a gross understatement I know).

A quoted example was Boeing, who has to create 310 million pages per year to describe 13,000 aircraft – all of which are individually configured and reconfigured on an on-going basis. In total, estimates say that the company publishes 35,000 pages per hour, every day, every week of every year, so the time and cost saving potential is massive. A more general example was based on three products of which there are four variants,

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the remainder, for 2008 PTC is aiming to even this out with all areas of business performing equally. From a product standpoint, that's going to be driven from further uptake of Wildfire as well as Mathcad and Arbortext. In terms of vertical market, PTC is looking to move into areas that it hasn't traditionally operated within such as Pharmaceuticals and Financial Services.

Following on from Harrison, PTC's Chief Product Officer, Jim Heppelman delivered some insight into how PTC was looking to "Push the boundaries of Product Development".

Dynamic publishing

With all of the recent acquisitions, I was curious to learn how the company was looking to take the technology from the Arbortext and Mathcad acquisitions and integrate it into the PTC product offering. Dealing with Arbortext first, some of the CAD vendors I've discussed this deal with simply haven't got their heads around it, but when you look at the products as is and talk to the customers already using the system, it's clear that the business benefits that can be derived from such a Dynamic Publishing environment can very quickly give a company a good return on their investment.

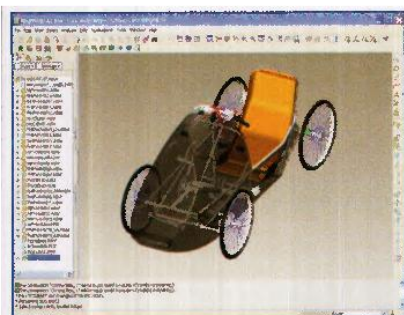
Arbortext is an application set that takes the pain out of preparing content for all manner of documentation, whether that's service manuals, training manuals, and installation instructions. The concept is that if you have multiple configurations or modular products then you can quickly develop content that makes up the documentation (whatever that might be), and have the system create

four document types, in two formats and 15 languages – which means a total of 1,440 documents that need to be ready to go when the product ships out of the door, if not before! While at present this has been limited to the engineering and manufacturing world, PTC is seeing this as potential for vertical market growth. If you take a look at the financial services world, documents like insurance policies, mortgage agreements are all based on standardised text configured for each customer – a perfect fit for the benefits that Arbortext can bring.

Mathcad

Moving onto the Mathcad acquisition, at present, Mathcad is widely known as the 'Excel for Engineers' offering users a method of "describing standard and proprietary engineering calculation using familiar math notations". PTC's vision of how this will integrate into the product family revolves around establishing greater links between the upfront calculation work that Mathcad allows at a very formative stage and the fuller product descriptions (in terms of 3D geometry) that you create within Pro/Engineer. Many within the industry are discussing the concept of Functional Modelling and while the likes of Autodesk are heralding a new era 3D CAD, others are looking at this at a much more fundamental level, going back to basics to assist with very core engineering problems at an early, conceptual stage. Incidentally, PTC isn't the only company in the game - there's a lot of interest in a company called Geomate that has a similar tool.

Back to Mathcad - the vision is for users to





create engineering calculations within Mathcad, and then map the parameters, inputs and output to Pro/E assemblies to drive the first iteration of the design and use bi-directional links between Mathcad and Pro/E to drive the detailed design – based on calculated engineering functions rather than guesswork.

During the event, I also got to sit down with some of the Product Managers at PTC and discuss the integration planned between the Arbortext and Pro/E. At present, there's still a disconnect between the engineering and design staff and those responsible for technical documentation, particularly when you're looking at generating 3D or 2D drawings and illustrations. Despite the advances made with all 3D modelling applications, the simple facts are that if you're serious about technical publications, then there is a separate workflow, and a requirement for different toolsets to prepare those images for publication. With this in mind, PTC is looking to both increase the integration between the Pro/E data and that required in the tech-pubs world and to create a new product, currently known as Pro/Illustrate. This is intended to use the data associatively, enabled through Pro/E and the managed environment that the Windchill products bring to create a set of tools specifically developed with the tech-pubs industry in mind.

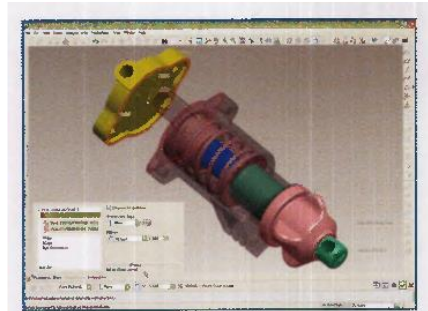
PLM OnDemand

Another area I was particularly interested in exploring was PTC's PLM OnDemand. This offering follows the guidelines laid down by many other Software and Services industry players, which require ease of configuration and implementation and perhaps most importantly, low cost of adoption. If you're unfamiliar with 'OnDemand' as

multi-CAD environments typically the norm these days, this is excellent news. Another major factor for many users is the ability to control those documents which are typically not CAD-based but nevertheless critical to the organisation and product development process – so as a result, PDMLink OnDemand also includes drop-down menus within Microsoft Office applications for search and check-in/out.

As you'd expect, it's all web-browser driven and provides roles-based access to product information, a home page displaying current work, tasks, personal notebook, and subscriptions/notifications and access to product and item-specific discussion forums for your design team (whether internal or external). In terms of viewing and collaboration, the system uses the ProductView technology that has seen a lot of development work in the past few months, and allows users to locate and verify content faster and easier with 2D or 3D interactive views, as well as to validate engineering/CAD data without requiring the original application – and of course, markup technology is available and managed.

Alongside CAD and document management and revision control, PDMLink OnDemand's strengths are Change and Configuration Management. When it comes down to these non-standard, highly customisable factors of data management, PTC has optimised the sales and implementation process – in line with the whole OnDemand ethic. During the set-up process (probably beforehand), your organisation fills out a questionnaire that details how such matters are handled and managed, whether that's more simple things like part numbering and classification or ECO ECN requests and workflows? The end result is that as it's deployed, the system is configured for how you work, rather than the user



of basic templates which your organisation can customise to match their particular workflows for processes such as Six Sigma, APQP, and NPI (PACE and Style Gate) and just as with internal teams within PDMLink, data access, when offered to external organisations, is fully controlled and managed with full traceability. There's also a bi-directional link with Microsoft Project.

The one factor that many potential users may be concerned about is hosting their mission critical data off site. Technically, the service is as secure as it needs to be - IBM use a multi-layered approach with the web-based server separated from the PTC OnDemand Server by a firewall (of course, there's an additional firewall between the web connection and the web-server). All of your communications are conducted using HTTPS (the S is for Secure), 128 bit SSL security.

Conclusion

After sitting through the presentations, and perhaps more importantly, talking to the team, I'm left with the impression that PTC is a company on its way back. It also appears to be one that's ready to take on the challenges that the whole

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perhaps best espoused by IBM, the concept is that rather than an organisation purchasing and maintaining software, along with the hardware and other IT infrastructure issues, you pay someone else to do the hard work for you. In the case of PTC's OnDemand offering in the PLM space, the hosting work is carried out by IBM. In specifics, it is split into two systems, which match the current Windchill product line at a base level.

The Windchill PDMLink OnDemand portion offers the user the PDM functionality – that of data vaulting and data control management. As you might expect, the system understands the complex relationships and inter document links that are a powerful factor within Pro/Engineer. Interestingly, PTC has also implemented integrations between PDMLink OnDemand and other CAD systems, currently including direct integrations for Cadds, AutoCAD, Catia V4 and V5, Unigraphics/NX, Autodesk Inventor, and SolidWorks – and with

having to spend days, if not weeks, working through the process before they can become productive.

On top of the data vaulting, management and change/configuration management tools offered by PDMLink, the ProjectLink OnDemand offering adds in the missing elements essential to build a true Product Lifecycle Management service. Here, we are talking about taking that wealth of management and controlled data and extending its access to a much wider community, typically outside of your own internal design team to partners and suppliers.

ProjectLink adds on tools which allow you to manage not just the development process, but also the project that surrounds it and that product's lifecycle, from conceptualisation, through to reality. As such, it adds-in specific technology to allow project planning with milestones, activities, tasks, deliverables, and resources. It's delivered with a number

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Yes, Pro/Engineer is still a major focus for the company and Windchill continues to be a major revenue generator for the organisation, but alongside this it is the work that PTC is currently undertaking with regards the Arbortext products and technology that is most interesting. PTC is looking to take that core technology and connect up areas of product development and production process that have yet to be touched by an optimised and integrated automation technology. The future looks very exciting indeed. ■

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